FCS TODAY

FU CHUN SHIN MACHINERY MANUFACTURE CO., LTD.

Breaking News

A Road to Victory - FCS Indonesia

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FOCUS

▸ Like a Shower of Arrows:FCS Global Exhibits

INDEX

A Road to Victory – FCS Indonesia 1

Like a Shower of Arrows: FCS Global Exhibits 2
M'sia-plas / Plastic & Pack Pakistan / Vietnam Manufacturing Expo
Pack Print Plas Philippines / PPP Indonesia

Induction Heating: High Efficiency, Energy Saving and Green Technique 3

2016 FCS Global Exhibitions Preview 4

Family Day, the FCS way! 4

A Road to Victory — FCS Indonesia

Reported by PMO

On Nov. 17th, as FCS continues to expand its reach in Southeast Asia, they finally announced the launch of its newest branch office in Jakarta, Indonesia led by Deputy CEO, Mr. Alan Wang, for its inauguration.

FCS began in 1974 as a lathe factory which later shifted to plastic injection molding machine in 1978. In 2004, FCS received an emerging stock approval from the OTC-SEC and became the first publicly traded injection molding machine manufacturer in Taiwan. FCS became a multinational company catering to customers worldwide with the aid of their branch offices in Dongguan (1994) and Ningbo (2001). And with the establishment of FCS in Indonesia, they have truly transformed into an "Injection molding solutions provider."

FCS Indonesia is the company's latest feat just after establishing FCS Philippines and Vietnam. According to Mr. Alan Wang, orders from Indonesia was at least US$ 1.5 million a year, hence a joint venture with the current agent was inevitable. This will then serve as a blueprint for the company's future expansion worldwide. FCS Indonesia aims to provide fast and reliable service with the support of FCS Headquarters. Using local knowledge, experience and understanding of the market, FCS will be able to expand further its market share in the country. By providing our dear customers with tailor-made machines and world class customer service, FCS will be able to reach greater heights.

Indonesia ranks as one of the most important markets especially in Southeast Asia. Even Mr. Wang recognizes this step as an important milestone for their overseas expansion. They not only plan to enter the ASEAN market but really build their roots by establishing a production plant in 2018. FCS will continue to push forward to the next stage of its growth - to become a Top 10 Global company in 2025.

Focus

Like a Shower of Arrows: FCS Global Exhibits

Reported by Sales Dept.

The 2nd half of 2015, FCS made an intensive stage pose in Malaysia, Pakistan, Vietnam, Philippines and Indonesia. What an overwhelming propaganda let FCS has become a topic of focus in Injection Molding Machine Industry.

FCS not only pays more attention to the establishment of overseas bases and maintain the development of the original customer, but also aims at the future to bring up the new marketing strategy, such as branched out into the Medical Industry with Sheng- Guang Group of China and launched the newest branch office in Jakarta, Indonesia.

In the course of this strategy, the exhibition is a marketing platform for packaging image, brand messaging, and benefits provided between business and domestic and foreign buyers to interact and deal.

Malaysia

M'SIA-PLAS

By Brenda

M'SIA-PLAS held between 28, July ~ 01, August, 2015 in Kuala Lumpur, Malaysia. FCS showed one 160-ton Rotary Table Two-component Injection Molding Machine with 2-colored comb mold. The special and colorful product has attracted the visitors' attention during exhibition and the displayed machine was sold out successfully.

FCS has been long present in Malaysia for more than 10 together with its trusted partner, SENTOPLAS, building excellence together by offering quality machines and services. We will keep giving all customers a brand new image, and striding proudly ahead.

Pakistan

PLASTIC & PACK PAKISTAN

By Leo

This will be a bump harvest year 2015. With the best service provided by the local agent, OROTECH, FCS has cultivated in the Pakistan market for a long time.

Like the attitude to any other markets of FCS, FCS always puts customers demand on the first priority, provides the customized machine with economic price, and has never stop to carry out free on-time-after-sales service. It was not too hard to see that, whenever in the exhibition, our small booth was full of customers. FCS also thanks for all the customers who trust and grow up with us. We will keep moving forward together with you for Pakistan plastic industry!

Vietnam

VIETNAM MANUFACTURING EXPO

By Kata

Vietnam Manufacturing Expo is a leading Exhibition on Machine Tools for Mold & Die Making and Injection Technologies for Plastics Manufacturing. The exhibitions took place in 3 days from Sep. 10th to 12th at Hanoi International Center for Exhibition, Culture Palace (I.C.E. Hanoi), and attracted more than 9,000 trade buyer both local and overseas from 30 countries.

This time, FCS displayed the Servo Power-Saving Injection Molding Machine: HT-SV Series. The HT-SV series adopt high efficiency motor and pump control technology. It accomplishes high energy saving, high precise, high response, low noise and easy to be controlled. Under ideal situation, it attracted the attention of all visitors and even exhibitors during the exhibition.

Once again, by participated in VME2015, FCS continues to assert our position in Vietnam market.

Philippines

PACK PRINT PLAS PHILIPPINES

By Aldrin

With the Philippine market ever growing, FCS felt that it was time that we joined the country's three (3) day exhibit and announce to the nation that we are here to stay. PACK PRINT PLAS is the biggest plastic industry related exhibition in the Philippines. The event boasts more than 200 exhibitors from Philippines and overseas. The event hosted at least 6 injection molding machine manufactures present at the event namely Jonwai, LG, Yizumi, Sound, Haitian, and FCS.

FCS boasts its display of a 280-ton Two-component Injection Molding Machine as being the first of its kind in the Philippine market, and attracting the attention of all manufacturers and company owners. The effect of this exhibition increased the confidence of the Filipino customers towards the FCS brand. With the exhibition all behind us, the experience became a declaration to the Philippine market that FCS is here to stay.

Indonesia

PPP INDONESIA

By Neilson

As one of the exhibitors for Plastics & Rubber Indonesia 2015 (The 28th International Plastics & Rubber Machinery, Processing & Materials Exhibition), FCS personally experience that it is indeed an Internationalized exhibition in the industry – it is well attended by the main players of the Injection Molding Machine Manufacturers from Germany, Japan, Taiwan, Korea and China, etc.

This exhibition is also the first one that FCS Indonesia attended since its establishment this year. Every visitor who came to the booth was well informed about the Grand Opening of PT. FUCHUNSHIN TECHNOLOGY INDONESIA on November 17, 2015, which represents a major milestone of FCS Group for its sales territory overseas.

Induction Heating: High Efficiency, Energy Saving and Green Technique

Reported by PIM

Foreword

Currently, induction heating technique is widely used in many fields. One of those is applying on barrel heating and mold heating of an injection molding machine. In this report, advantages of induction heating technique in barrel heating system about high efficiency, saving energy is introduced briefly.

A set of experiments are tested on barrel heating system of AF-110 machine to consider the efficiency and energy saving when induction heating is used. The results showed that, the barrel heating system via induction method is quicker, and more energy saving than that one via traditional method. Heating rate and power consumption are mainly investigated in this report.

Experiment Setup

Two sets of experiments are implemented for both barrel heating systems; traditional barrel heating system called resistance barrel heating system as in Figure 1a and innovation barrel heating system called induction heating system as in Figure 1b. The heating requirement areas along barrel are divided to 5 main heating zones as shown in Figure 2.

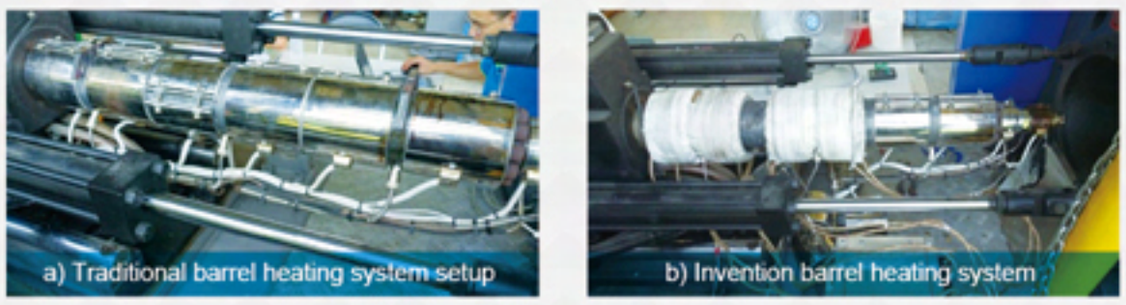

Figure 1: Experiments setup

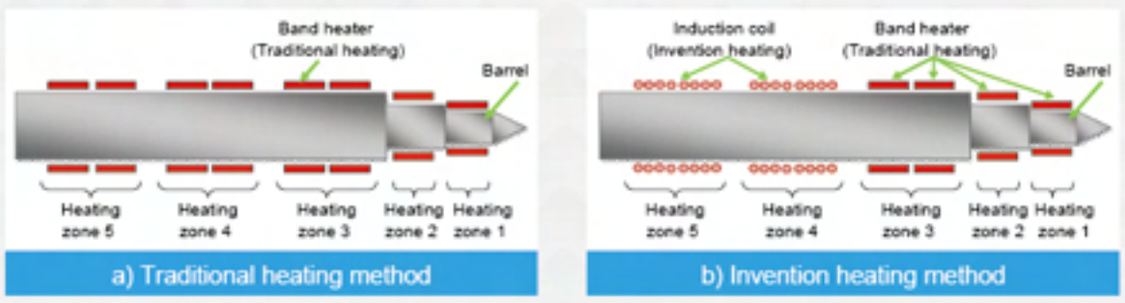

Figure 2: The heating distributions along barrel of AF-110 machine

In traditional heating system or resistance heating system (RHS), some band heaters acted as resistors cover the barrel to heat. For heating zones of 3, 4, and 5, each zone is installed by two band heaters and rests of zones are just used one band heater as shown in Figure 2a.

In invention barrel heating system or induction barrel heating system (IHS), band heaters at heating zones 4 and 5 of traditional barrel heating system are replaced by induction coils with power supply of 5 kW as shown in Figure 2b.

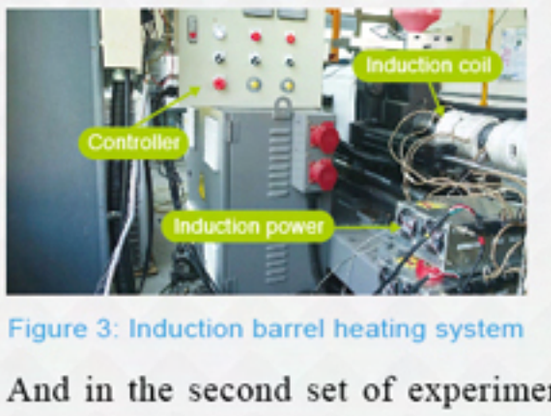

Figure 3: Induction barrel heating system

First set of experiments is that, the barrel is heated up to 200℃ to consider the heating and then keep the temperature at this value for 200 seconds to check the stability of temperature control and totally power consumption for both barrel heating systems.

And in the second set of experiments, after the temperatures at heating zones of barrel are at desired temperatures of 200℃, the injecting operation with PP (Polymer Propylene) material are done with setting 20 mm and 140 mm in lengths of injections for both barrel heating systems. For 20 mm distance, the injections are repeatedly 20 cycles and 10 cycles for 140 distances. All conditions are kept the same for both barrel heating systems such as injection pressure and injection velocity. Sum of power consumptions of all cycles for both barrel heating systems are compared. Experimental setup is showed in Figure 3.

Results and Discussions

For the first set of experiments, the results of heating rates, temperature stability and power consumption of both barrel heating system: RHS and IHS are showed in Figure 4.

In Figure 4, it is obvious that, it takes about 700 seconds to heat up to 200℃ at heating zones 4 and 5 for RHS while IHS is about 160 seconds. On the other hand, the heating rates at heating zones 4 and 5 in IHS are very much igher than those in RHS. That is h1.04 ℃/s in IHS compared with 0.23 ℃/s in RHS.

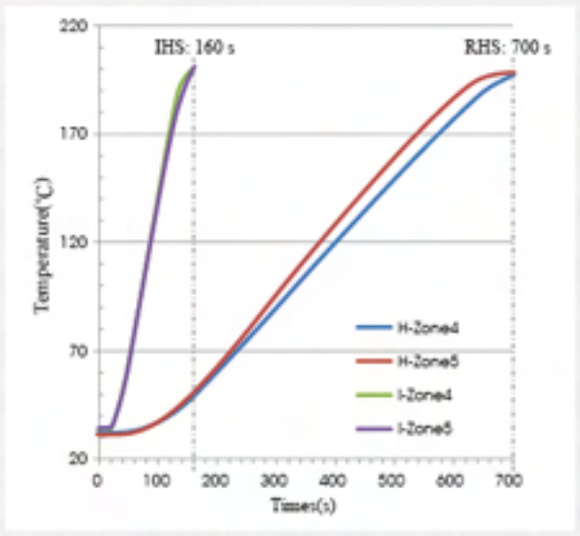

Figure 4: Temperatures at heating zones of 4 and 5 of both barrel heating system: RHS and IHS

Figure 5 and Table 1 showed the stability of temperature control of both barrel heating systems at heating zones 4 and 5. For requirement temperatures of heating zones 4 and 5 are 200℃. The standard deviations at heating zones 4 and 5 in RHS are 0.16 and 0.13 respectively while those in IHS are 0.45 and 0.43 respectively.

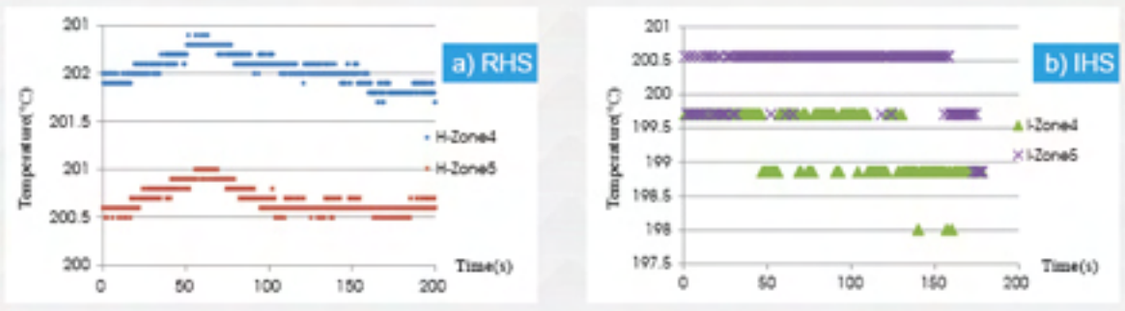

Figure 5: Deviation of temperature for both barrel heating systems at heating zones 4 and 5

	RHS		IHS	
	H-Zone4	H-Zone5	I-Zone4	H-Zone5
Average	202.03	200.68	199.30	200.33
Standard errors	0.0035	0.0030	0.034	0.032
Median	202	200.6	199.71	200.56
Standard deviation	0.16	0.13	0.45	0.43
Variance	0.025	0.018	0.21	0.18
Minimum	201.7	200.5	198.01	198.86
Maximum	202.4	201	199.71	200.56

Table 1: Temperature distribution at heating zones 4 and 5 for both barrel heating systems

The power consumptions at heating zones 4 and 5 for both barrel heating systems are listed in Table 2. The power consumptions of IHS are much smaller than those in RHS.

	RHS	IHS
Heating zone 4	1.1577 kWh	0.7776 kWh
Heating zone 5	0.1383 kWh	0.0997 kWh

Table 2: Comparisons of power consumptions of both barrel heating systems

For second set of experiments with injection operation, the power consumptions for both barrel heating systems: RHS and IHS are listed in Table 3. The power consumptions of IHS are less than those of RHS.

	Stroke140mm			Stroke20mm		
Screw stroke	RHS	IHS	Difference	RHS	IHS	Difference
Power consumption (kWh)	2.2357	1.9528	-	0.5931	0.5661	-
Melt (kg)	6.476	6.037		1.3360	1.4560	
Power consumption/melt (kWh/kg)	0.3452	0.3235	-6.29%	0.4439	0.3888	-12.41%

Table 3: Comparisons of power consumptions between two barrel heating systems: RHS and IHS when injecting distance is 140 mm and 20mm

Conclusions

Two barrel heating systems: IHS and RHS are tested on AF-110 machine to consider the power consumptions, heating rate, and stability of temperature control with different conditions. The experiment results include that, the heating rate in IHS is much higher than that in RHS and the power consumption in IHS is less than that is RHS. Additionally, the temperature on surface of band heater in IHS is in range of 60℃~80℃ is much smaller than that in RHS which is in range of 290℃~310℃.

2016 FCS Global Exhibitions Preview

Reported by PMO

Fu Chun Shin Machinery Co., Ltd. (FCS) continues to take a step closer at their goal of becoming among the global top injection molding machine brands. Taking one big step further this 2016, FCS aims to reach their goal through increased exposures such as opening overseas branches (i.e. FCS Indonesia), active participation in worldwide exhibitions as well as the frequent customer visits by service and sales team. With pride, we present to you the following exhibitions that FCS would be partaking in. Sincerely welcome you to our booth!

In China

Exhibition	China (Zhengzhou) Plastic Industry EXPO	XMIE	API China & PHARMPACK & SINOPHEX	Chinaplas	P-MEC China	ICMD	CPE-The 18th China International Plastics	Central Asia Plast	DMP	ME EXPO
Location	Zhengzhou	Xiamen	Shanghai	Shanghai	Shanghai	Shenzhen	Yuyao	Kazakhstan	Dongguan	Yiwu
Duration	Mar/11-13	Apr/12-15	Apr/18-20	Apr/25-28	Jun/21-23	Aug/30-Sep/1	Oct/21-24	Nov/21-25	Nov/29-Dec/2	Nov/30-Dec/3

In Overseas

Exhibition	Saudi Plastics & Petrochem	Interplastica	Plastec West	Plastasia	Plastimagen	3P Pakistan	ProPak Africa	Vietnam Manufacturing Expo	Iran Plast
Location	Saudi Arabia	Russia	United States	India	Mexico	Pakistan	Africa	Vietnam	Iran
Duration	Jan/18-21	Jan/26-29	Feb/9-11	Mar/3-6	Mar/8-11	Mar/15-17	Mar/15-18	Apr/6-8	Apr/13-17

Exhibition	Plastec Texas	Plastec East	M'sia Pack	Taipeiplas	Indoplas	Pack Print Plas	K Show	Plast Eurasia Istanbul
Location	United States	United States	Malaysia	Taiwan	Indonesia	Philippines	Germany	Turkey
Duration	May/4-5	Jun/14-16	Jul/28-31	Aug/12-16	Sep/7-10	Oct/6-8	Oct/19-26	Dec/7-10

Family Day, the FCS way!

Reported by PMO

Did you ever wondered how your family looked like while working? Do you ask yourself whether they express themselves the same way as if they're at home or are they seriously focused on work? What kind of environment are they in? These are the questions we'd like to answer during FCS Group's Family Day!

On the dawn of the 19th of September, while people were still having their sweetest dreams, the Welfare Committee were already up on their feet in FCS to treat our esteemed guests - FCS colleagues and their families. In order to let their loved ones experience the working environment of their families, gain a better understanding on how they undergo their fruits of labor, narrow the gap between each other, and enhance loyalty among colleagues, FCS held its first Family Day on the eve of Mid-Autumn Festival.

The day's activities included a factory tour, a buffet for everyone, carnival games and a raffle. The day kicked-off with a factory tour, which catered to 230 guests accompanied by 60 of our colleagues, to embark on a journey and understand how they work. They not only see how the machines are operated by their families, but also gained a better understanding of how close injection molding technology is to our life. Furthermore, they get to experience and learn through the D.I.Y activity of building a toy sheep. With this activity, FCS gained the hearts of their employees' families as well as a sense of pride and self-fulfillment.

After the factory tour, everybody were directed to enjoy a sumptuous European lunch. While having lunch, the guests were also invited to play in several booths which held some carnival games. As the day near its end, the most anticipated raffle draw was held as the icing on the cake. At the end of the day, the prize of the lucky draw is a major highlight of "Family Day".

The Family Day was generally held to showcase ourselves to the community, on the other hand, it became a festival to reunite with families and a platform for our colleagues to communicate with each other as well as with their families. After the activity, several families expressed their gratitude for being invited to this meaningful activity and for giving the chance to understand their loved ones' work and how they do it. One of the guests even said, "To know that our family member works in this kind of company and is making an effort to improve the industry, it makes us feel proud".